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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,115	04/18/2006	Takayuki Kishida	3637	4806

7590
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EXAMINER

ROBINSON, ELIZABETH A

ART UNIT	PAPER NUMBER
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1794

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/576,115	Applicant(s) KISHIDA ET AL.	
	Examiner Elizabeth Robinson	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11-18-2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1 and 4-8 are currently pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 4-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1 and 7 add the limitation that the outermost coating layer comprises a polymer latex prepared by copolymerization of monomer mixture containing 20-30 mass % acrylonitriles. While Paragraphs 32 and 33 of the instant specification teach this mass percentage for the dispersant adhesive and give examples of dispersant adhesives as polymer latexes, the dispersant adhesive is not defined as a polymer latex and thus, does not support the more broadly claimed polymer latex. All other claims depend from claim 1 or 7 and thus, also fail to comply with the written description requirement.

Claim 7 adds the limitation that the calender-processing occurs under low pressure. This limitation does not appear to be supported by the instant specification, which only teaches that the calendaring would not be performed at especially high pressure, but does not limit the calendaring to only low pressure.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 contains the trademark/trade name Parker Print Surf[®]. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a smoothness testing and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 103

Claims 1 and 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al. (WO 2000/40424) in view of You (US 5,904,761) and Vitkuske (US 3,399,080) and evidence given in the Paper Density literature.

Regarding claims 1, 4 and 5, Chang (Page 2, lines 2-14) teaches a coated paper that is coated with a basecoat and a topcoat. The topcoat comprises a binder (adhesive) and pigments. Chang (Page 5, lines 16-24) teaches that the topcoat layer can have the same pigment mix as in the basecoat. The basecoat comprises from 0 to 30% satin white with the remainder of the pigment being other white pigments. The basecoat can also comprise a binder that is present at 8 to 20% of total weight (Page 5, lines 25-30). Chang (Page 5, lines 10-15) teaches that the basepaper can be made of any suitable paper pulp composition and preferably is a fully bleached chemical pulp.

Chang does not teach the bulk density of the paper.

As evidenced by the Paper Density literature, the typical density of pulp sheet is 0.69 g/cc.

The base paper of Chang either meets the bulk density limitation based on the typical density of a pulp sheet or it would be obvious to one of ordinary skill in the art to choose an appropriate basepaper, since Chang teaches that the paper can be chosen to meet desired properties.

The basecoat can have a coating weight of 10 to 14 gsm (Page 5, lines 2-9) and the topcoat can have a coating weight of 10 gsm (Page 16, lines 26-28). The coating layers can have the same coating weights, the same pigments and binder, in the same

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amounts as in the instant application. A base paper with the same bulk density, coated with the same coating composition, would have the same bulk density as in the instant application and thus, would meet the coated paper bulk density limitation.

Chang does not teach the average particle size of the satin white.

You (Column 2, lines 13-16 and Column 1, lines 5-9) teaches a satin white pigment for coated paper that provides a more uniform particle distribution in the coating. The satin white has a particle size of 0.3 ± 0.1 microns (Column 2, lines 37-43).

It would be obvious to one of ordinary skill in the art to use the satin white of You, as the satin white of Chang, in order to provide a satin white that has a more uniform particle distribution in a paper coating composition.

Although there is no disclosure that the particle size was measured pursuant to radiolucent particle size measurement, given that You discloses particle size as presently claimed, and absent evidence of criticality regarding how the particle size is measured, it is clear that You meets the requirement in the claim regarding the particle size.

Chang teaches that the topcoat can also comprise a synthetic latex binder that is present at 8 to 20% of total weight (Page 5, lines 25-30).

While Chang gives examples of synthetic latex binders in the Examples, Chang does not detail the binders that can form this layer.

Vitkuske (Column 1, lines 51-72) teaches polymer latex binders for paper coating that have improved adhesion, low water sensitivity and improved printability. The binder is an aqueous latex formed from copolymerization of monomers that include 48 to 68

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weight percent of an alkenyl aromatic monomer; wherein up to about 90 percent by weight of this monomer can be replaced by acrylonitrile (Column 1, line 51 through Column 2, line 64). Vitkuske (Example 2) further teaches an example binder 7 that comprises 25 weight percent acrylonitrile and exhibits no picking when printing. For optimum film forming (Column 3, lines 36-44) is it desirable that the majority of the latex particles have individual diameters of from about 500 to 2500 Angstroms (50 to 250 nanometers).

It would be obvious to one of ordinary skill in the art to use the synthetic latex binder of Vitkuske, as the binder of the top coat of Chang, in order to have a specific synthetic latex binder that has improved adhesion, low water sensitivity and improved printability such as no picking when printing.

Regarding claim 6, Vitkuske (Column 3, lines 56-60) teaches that the binder can also comprise a natural binder such as casein or starch (water soluble adhesives) at 10 to 95 percent by weight of the adhesive. Since the synthetic latex binder is present at 8 to 20% of total weight, 10 % of this amount would meet the limitation of less than 4%.

Regarding claim 7, Chang teaches that the basecoat is coated and then the topcoat is coated. Since these coatings do not happen at the same time, there will be some degree of drying of the base layer prior to coating the topcoat layer. The paper is then finished with a calendering process with a lower nip loading (low pressure) (Page 18, lines 21-31). Since the calendering occurs after the paper is coated, there will be some degree of drying of the top coat layer prior to calendering. As stated above, a base paper with the same bulk density, coated with the same coating composition,

would have the same bulk density as in the instant application and thus, would meet the coated paper bulk density limitation.

Regarding claim 8, the basecoat (undercoat) can be coated with a blade coating device (Page 5, lines 2-9). As stated above, the coating can have the same composition and thickness as in the instant application. A coating produced in the same manner from the same composition would have the same Parker Print Surf[®] smoothness.

Response to Arguments

Applicant's arguments, filed September 8, 2009, with respect to the composition and particle size of the binder polymer latex for the outer coating layer have been considered but are moot in view of the new ground(s) of rejection. These limitations on the composition and particle size of the binder polymer latex were not previously claimed.

Applicant argues that the particle size of the satin white particles of You (US 5,904,761) is different than that of the instant claims, since the range is narrower. However, the particle sizes meets the claimed range, since as Applicant points out it is well within the claimed range. It is not required to completely encompass the range in order to meet the limitation.

Applicant argues that Chang et al. (WO 2000/40424) does not teach the bulk density of the coated paper. However, the rejection was over the fact that a base paper with the same bulk density, coated with the same coating composition in the same

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amount, would have the same bulk density as in the instant application and thus, would meet the coated paper bulk density limitation. As part of the arguments regarding the base paper density, Applicant argues that the paper density in the Paper Density literature is different than that of the instant claims, since the range is narrower. However, the density meets the claimed range, since as Applicant points out it is well within the claimed range. It is not required to completely encompass the range in order to meet the limitation.

Due to amendments to the claims, the claim objections and 35 U.S.C. 112, second paragraph rejections from the June 9, 2009 Office Action are withdrawn.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Robinson whose telephone number is (571)272-7129. The examiner can normally be reached on Monday- Friday 8 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. R./
Elizabeth Robinson
Examiner, Art Unit 1794

November 30, 2009

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1794